

7	Shaly rock, Red, somewhat mottled green. (102.)
6	Shaly rock, greenish. (101.)
9	SS. bluish-gray. (100.)
3	Shale, greenish-gray. (99.)
3	Shaly rock, lubby, variegated, considerable per centage of peroxide of Iron. (98.)
47	SS. bluish-gray. (97.)
6	Shales, Red and green. (96.)
10	Shaly rock, gray and greenish. (95.)
6	Shaly rock, Red and green. (94.)
	SS. bluish and gray; of great thickness at the village of Palenville.—Continued downwards in the following

Section along Schoharie Creek in Schoharie County, N. Y., between Gilboa and Middleburg, from the Catskill down to the Upper Helderberg, by Andrew and Clark Sharswood. Report to James Hall in the year 1873.

12	Red shaly rock. (This is supposed to be the same bed No. 94 which bottoms the Catskill Section of 1874.) Top of Manorkill Cataracts at Sawmill. (94.)
15	Bluish-gray SS. (93.)
10	Gray shaly rock. (92.)
14	Gray SS. (91.)
2	Gray shale. (90.)
15	Gray shale SS. (89.)
12	Red shaly rock, with green bands. (88.)
17	Thick bedded gray SS. (87.)
20	Thin bedded gray SS. (86.)
9	Thin bedded gray SS., with <i>plants</i> . (85.)
20	Hard (false bedded some of it) gray SS. (84.)
54	Gray SS. (83.)
30	Unknown to foot of Cataracts. (82.)
25	Gray SS. (81.)
2	Dark sandy shale. (80.)
8	Gray SS. (at Gilboa) <i>stumps, leaves, stems</i> . (79.)
6	Dark shale. (78.)
10	Gray SS. (77.)
14	Gray and bluish shale and shaly rock. (76.)
4	Red and green mottled shale. (75.)
2	Reddish hard SS. (74.)
40	Gray SS. (the top makes the Gilboa falls.) (73.)
40	Gray SS. (72.)
?	Unknown. (71.)
40	Hard gray SS. (with sharp S. W. dip.) (70.)
25	Unknown. (69.)
20	Gray SS. (68.)
50	Unknown. (67.)
10	Coarse flaky gray SS. (makes top of Little Manorkill fall.) (66.)
36	Unknown. (65.)
22	Gray SS. (64.)
27	Gray shaly rock, <i>fossils</i> in upper part. (63.)
17	Gray shaly SS.; top is Cong., <i>some fossils</i> . (621)
60	Unknown. (61.)
16	Gray flaky SS., <i>fossil plants</i> . (60.)
24	Gray slate and SS. (59.)
9	Gray SS. (58.)
10	Unknown. (57.)

- 4 Hard gray SS. (56.)
 33 Gray and bluish shale, a *few fossils*. (55.)
 8 Gray SS. (54.)
 9 Dark shale. (53.)
 34 Unknown. (52.)
 ? Gray SS. (51.)
 36 Unknown. (50.)
 30 Gray, greenish shale, shaly rock, *few fossils*. (49.)
 13 Gray SS. (48.)
 15 Greenish shale. (47.)
 14 Gray SS. (some false bedded.) (46.)
 20 Gray SS. and shaly rock. (45.)
 4 Greenish rubbly rock. (44.)
 15 Gray SS., false bedded (makes Pitchen Hollow rapids). (43.)
 14 Unknown. (42.)
 35 Massive gray SS., marked horizon. (41.)
 21 Dark shaly rock. (40.)
 8 Thin bed gray SS. (39.)
 20 Unknown. (38.)
 28 Coarse gray SS. (37.)
 34 Unknown. (36.)
 8 Gray SS. (part Concretionary.) (35.)
 42 Unknown. (34.)
 36 Dark, and gray shaly rock. (*fossils*, spirals towards top.) (33.)
 50 Unknown. (32.)
 72 Gray SS., dark shale in the upper part of it (makes top of the Wanhalla), *some fossils*. (31.)
 23 Dark shaly rock. (30.)
 87 Gray SS. (29.)
 8 Dark shaly SS., *few fossils*. (28.)
 8 Gray SS. (27.)
 4 Dark shale. (26.)
 6 Bluish-gray SS. (25.)
 41 Gray and dark sandy shaly rock. (24.)
 44 Unknown. (23.)
 50 Thin bed gray SS.; a little of it false bedded; some Concretionary. (22.)
 48 Gray sandy shaly rock. (21.)
 27 Thin bed gray SS. (20.)
 4 Gray concretionary rock. (19.)
 183 Gray shaly SS. (base of Wanhalla Mtn.) (18.)
 20 Bluish-gray SS. (17.)
 70 Gray and dark bluish-black Shale. ("Tow-path" road.) (16.)
 25 Bluish-black and gray shaly rock. (15.)
 16 Unknown. (14.)
 23 Dark gray and blackish shaly rock, *fossils lower part*. (13.)
 29 Gray and dark blue shaly SS. (lower end of Tow-path road). *Probably part of bed at top of Vooman's nose*. (12.)
 49 Gray shaly SS.; top of Vooman's nose, passes under water at lower end of Tow-path road. [Inclination 581 feet in 2 miles, making no allowance for fall of Schoharie Creek.] (11.)
 11 Blackish shale. (10.)
 28 Gray shale and shaly SS. (9.)
 284 Dark gray shale (Vooman's nose), *fossils* most abundant in upper part. (8.)
 205 Unknown up to ledge on Vooman's nose. Surface covered with dark gray shale. 10 ft. of black shale is exposed by road cut half a mile west of Vooman's nose; and supposed to come in this interval of 205 feet. (7.)

100	Unknown in Middleburg Village. (6.)
2	Black shale. (5.)
21	(Black shale ?) judging by the surface. (4.)
2	Black slate. (3.)
15	Unknown. (2.)
	Helderburg Limestone. Half a mile below Middleburg, at grist mill. (Makes falls in the Schoharie.) (1.)

Section of the Palæozoic Rocks in Blair County, by Mr. Franklin Platt and Mr. R. H. Sanders, of the Second Geol. Surv. of Pennat., in 1877.

(Communicated to the American Philosophical Society, April 19, 1878.)

The following section of the Palæozoic rocks, exposed in Blair County, was made by compiling the sections taken from the following points:

From the summit of the Allegheny Mountains at Bennington along the Pennsylvania Railroad to Altoona for XII, XI, X, IX, and VIII. At Frankstown for VII. At Hollidaysburg for VI. At McKee's Gap for V. At Tyrone and Spruce Creek Gaps for IV, III. From Spruce Creek to Tyrone Forges for II. The measurements are based on the railroad lines and from the topographical survey of Blair County.

From the Mahoning Sandstone to coal A is taken from report H H.

XII to VIII was measured by plotting on the railroad map the various cuts and measuring the rocks in each cut, and then projecting them over onto a section line. The projection of the various cuts onto the section line was most likely accompanied by a few errors but they would not make any material difference in the thickness.

The entire thickness of VII could not be measured at Frankstown, where the best exposure could be seen. A good measurement of VI was obtained at the "Chimney Rocks" at Hollidaysburg.

The measurement of V taken along the railroad cut at McKee's Gap gives a good measurement except the lower part which is concealed, and which should have the horizon of the "Frankstown" ore in it.

The Medina Sandstone shows best on the Pennsylvania Railroad, east of Spruce Beech Tunnel. The remainder of IV shows best in Tyrone Gap, but the rocks are crushed and the measurement is not reliable.

III a complete section of these slates do not show anywhere in the county.

II the thickness of these limestones and dolomites is taken from a carefully measured section along the Little Juniata from Spruce Creek to Tyrone Forges.

R. H. Sanders.

345'	4''	XIII	Lower Productive Coal Measures.
223'	1''	XII	Pottsville Conglomerate.
283'		XI	Mauch Chunk Red Shale.
1,274'	4''	X	Pocono Sandstone.
2,560'		IX	Catskill Sandstone and Shale.
6,519'	2''	VIII	Chemung, Portage, Hamilton, Upper Helderburg
50'		VII	Oriskany Sandstone.
900'		VI	Lower Helderburg Limestones.
1,328'	3'	V	Clinton Red Shale.
2,365'	10''	IV	Medina and Oneida Sandstone.
900'		III	Hudson-River and Utica Slates.
6,600'		II and I (?)	Trenton, Calciferous and perhaps Potsdam

23,348' Palæozoic rocks exposed in Blair County.